

Determination of Public Land (Rangeland) Health for 64095 WONDER LANE

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that the public land within the Wonder Lane allotment #64095 meets the Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered and Special Status Species standard. There are no public land riparian areas on this allotment, therefore this standard was not addressed.

/s/ T. R. KREAGER

Assistant Field Manager

07/22/2004

Date

Standards of Public Land Health

Evaluation of 64095 WONDER LANE Allotment

[01/14/2004]

The Roswell Field Office conducted rangeland health assessments at one study site within the Wonder Lane Allotment #64095. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64095- WONDER LANE	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on the Wonder Lane #64095 allotment. Ten of these assessed soil site stability, 11 assessed hydrologic function and 13 assessed biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on one location were utilized to assess the rangeland health of the public land within the allotment. This allotment is in the "C" (custodial) category due to the small amount of public land present

The dry conditions occurring over the last several years have impacted this allotment and surrounding area. this site classifies as an SD-3 Gyp Upland with shallow soil. This 80 acre/36 hectare parcel is surrounded by private land and fenced. Most of the indicators assessed rated None to Slight to Slight to Moderate. There is some evidence of minor erosion with slight active pedestaling on the alkali sacaton (*Sporobolus airoides*) and gyp dropseed (*Sporobolus nealleyi*) clumps. Water flow patterns and pedestals both rate Slight to Moderate. This pasture is fenced off and use is restricted to summer except when goldenrod (*Solidago canadensis*) is toxic to livestock. At the time of assessment, this plant was in dormancy. For the ESD, the grama (*Bouteloua* spp.) grasses are absent. This has contributed to a rating of Moderate for structural/functional groups. The number of species expected is reduced.

Approximately 20% of the vegetation present is dead or decadent resulting in a Slight to Moderate rating. The unfavorable climatic conditions have added to this problem. The vegetation present though is thriving and producing seed head. Reproductive capability is only slightly limited and this indicator rates at Slight to Moderate. Invasive plants rate at Moderate as saltcedar (*Tamarix chinensis*) is scattered throughout, especially in the

drainage. Goldenrod (*Solidago canadensis*) has been occurring in this pasture (as per conversation with the allottee) and livestock use has been restricted to the time of year when this plant is not in the toxic phase. Annual production rates Slight to Moderate as approximately 2/3 of the ESD average can be observed. Physical crusts are evident throughout. There is some continuity with occasional breaks. This indicator rates Slight to Moderate.

Wildlife - Evaluation of the integrity of the biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description, such as functional/structural groups and invasive plants, as discussed above. These two biotic indicators fell within the Moderate rating. As with many other range sites, the grama grasses (*Boutelou* spp.) seem to have fallen out of the vegetation community, although rangeland use is not intensive in the area of interest. Saltcedar tends to take over any bottomland or sink landform, and can be readily treated in this area as it is concentrated in an old sink area. Goldenrod is problematic in the area and may be controlled by increased grass production in favorable wetter conditions.

In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation. Wildlife Habitat and Population indicators rate Slight to Moderate, primarily for a variety of non-game terrestrial species. The composition of vegetation reflects current climatic conditions, e.g., drought for the past several years. Range site production and cover of a variety of preferred plant species for wildlife, such as forbs and woody browse species, and the availability of seed for food and regeneration, is moderated by climate and land use. With respect to Special Status Species, none are known to occur in the area of interest at this time and the Habitat and Population indicators are, therefore, rated None to Slight.

Hydrology - Pasture Wonder Lane - The pedestal indicator rated as moderate. The recent dry conditions in combination with wind and water erosion has possibly decreased the amount of plant cover and possibly decreased infiltration into the soils which may have increased the amount of pedestaling of plants and rocks. All other indicators rated as none to slight or slight to moderate which shows a healthy ecological condition. Gypsum, dolomite, and siltstone deposits of the Yates Formation and bypsium, mudstone and dolomite of the Seven Rivers Formation outcrop in the area.

It is the professional opinion of the Assessment Team, that the public land within Wonder Lane meets the Upland and Biotic standards. See site notes and recommendations for further information regarding this ecological site.

Recommendations: It is highly recommended that this site be placed on a more rigorous monitoring schedule. The datum is not at present sufficient to meet the objectives for the public land within this allotment. However, steps could be taken to eradicate the saltcedar (*Tamarix canadensis*) from the drainage and improve the water holding capacity and infiltration rates of the soil. A more critical evaluation could be performed to examine the

goldenrod (*Solidago canadensis*) infestations in this pasture. The current rotational scheme employed by the allottee is sufficient enough to help this pasture recover from unfavorable climatic conditions. Summer use and rest before goldenrod can flower in the early fall is the continued strategy at the moment.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 64095-WONDER LANE						
Legal Land Desc	SENE 18 0100S 0250S Meridian 23		Acreage	80		
Ecosite	042CY006NM GYP UPLAND SD-3		Photo Taken	Y		
Watershed	13060007010 GOPHER					
Observers	NAVARRO/BAGGAO		Observation Date	01/14/2004		
County Soil Survey	NM666 CHAVES SOUTH		Soil Var/Taxad			
Soil Map Unit	Hp		Soil Taxon Name	HOLLOMAN		
Texture Class	NM666		Soil Phase	HOLLOMAN-GYPSUM LAND		
Texture Modifier	NM666 LOAM					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	11.25		NOAA Growing Season Precipitation	7.64		
NOAA Avg Annual Precipitation	13.55		NOAA Avg Growing Season Precipitation	11.18		
Disturbances and Animal Use:	Livestock use is primarily in the spring and summer before goldenrod (Solidago canadensis) has a an opportunity to flower. This public land parcel is fenced off from the surrounding private surface.					
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments :						
S H	Water Flow Patterns				X	
Comments :	Stable and short.					

S H	Pedestals and/or Terracettes			X		
Comments :	Some terracettes and slight active pedestalling.					
S H	Bare Ground				X	
Comments :	Bareground now at 50% and falls within the expected range.					
S H	Gullies					X
Comments :						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments :						
H	Litter Movement				X	
Comments :	Some litter being displaced.					
S H B	Soil Surface Resistance to Erosion				X	
Comments :	Physical crusts holding the soils in place. Some reduction in stability.					
S H B	Soil Surface Loss or Degradation				X	
Comments :	Some horizon lost.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments :	Changes have only a minor effect.					
S H B	Compaction Layer					X
Comments :						
B	Functional/Structural Groups			X		
Comments :	Absence of gramas (<i>Bouteloua</i> spp.) Some departure regarding ESD.					
B	Plant Mortality/Decadence				X	
Comments :	About 20% vegetation is decadent.					

H B	Litter Amount				X	
Comments :	Litter now at 10-15%. Falls within the expected range.					
B	Annual Production				X	
Comments :	Annual production is approximately 500-600 kg/ha, which is 80% of potential.					
B	Invasive Plants			X		
Comments :	Some saltcedar (<i>Tamarix chinensis</i>) at the the far eastern reaches of this 80 acre parcel. Goldenrod (<i>Solidago canadensis</i>) can encroach on this pasture during the growing season.					
B	Reproductive Capability of Perennial Plants				X	
Comments :	There is nothing limiting the reproductive capability.					
S	Physical/Chemical/Biological Crusts				X	
Comments :	Physical and biological crusts can be observed and is fairly uniform in some places and broken in others.					
B	Wildlife Habitat				X	
Comments :	An isolated 80-acre parcel of alkali sacaton grassland with a notable 'sink' infested with saltcedar. Habitat conditions appear good as the pasture is not heavily grazed by the few horses authorized under the permit. Surrounding area is developed with housing. Access is from Pine Lodge Road but the area is not visited by the public.					
B	Wildlife Populations				X	
Comments :	No specific wildlife population information at this time. Because of the small acreage and adjacent developments, wildlife populations would primarily be terrestrial non-game species and avifauna. The karst soils may provide potential habitat for prairie dogs which are known to occur in the area but are not present now.					
B	Special Status Species Habitat					X
Comments :	None known to occur.					
B	Special Status Species Populations					X
Comments :	None known to occur.					
Part 3. Summary						

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	6	3
H	Hydrologic	0	0	1	7	3
B	Biotic	0	0	2	8	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	1	10
Biotic		0	2	11

Site Notes: The 80 acres is surrounded by private land and is fenced. The allottee uses the parcel for grazing cattle and horses. The area however has the potential for goldenrod (*Solidago canadensis*) infestations during the summer. The allottee usually withdraws any livestock during the plants' toxic stages. Future evaluation is warranted to possibly remove the saltcedar (*Tamarix chinensis*) from the eastern fringes of this pasture. The area could quite possibly improve it's water holding capacity and infiltration resulting in possible ponding. The site was gps'd and entered into the study point coverage of Arcview.

Wonder Lane Allotment 64095



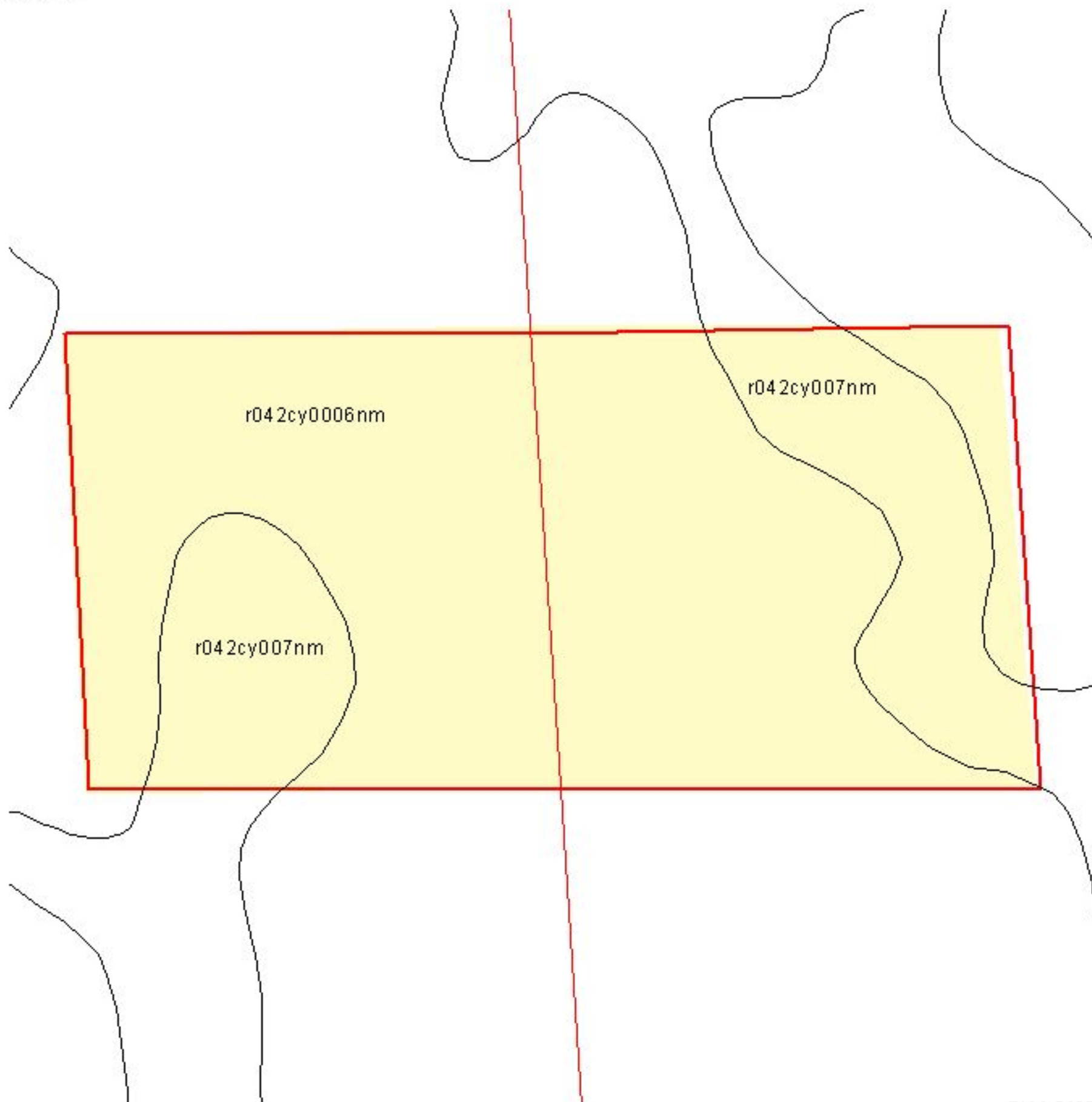


Rangeland Health Assessment Ecological Sites



Allotment 64095

T10S.R25E



T10S.R25E

0.05 0 0.05 Miles



Public



Private



Ecological Site Boundary



Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 8, 2003.

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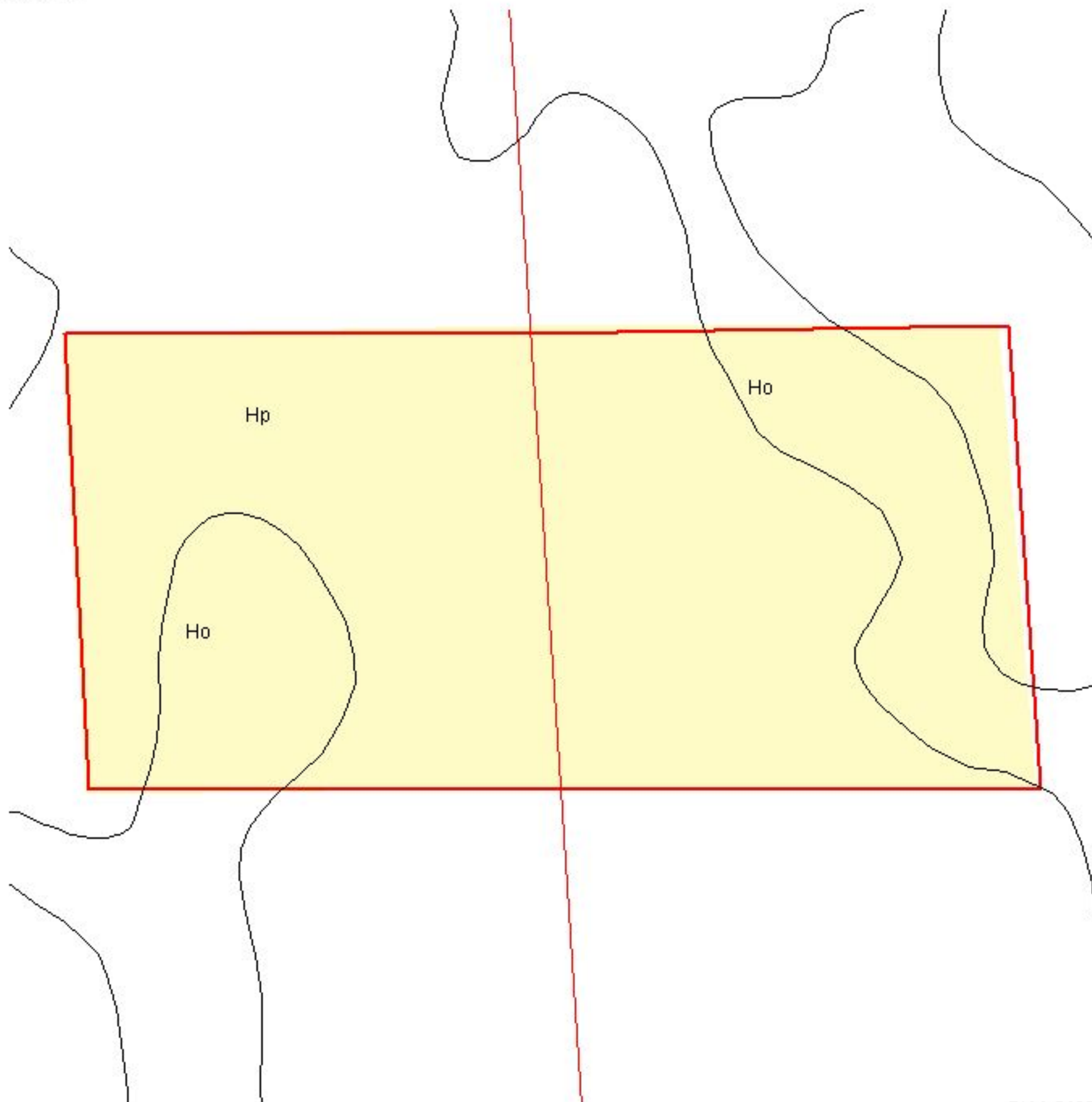


Rangeland Health Assessment Soil Mapping Units



Allotment 64095

T10S.R25E



T10S.R25E

0.05 0 0.05 Miles



Public



Private



Soil Mapping Units



Allotment Boundary

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